Advanced Multi-Spectral Imaging (MSI) For Medical Diagnostics

Principal Investigator

Tuan Vo-Dinh, Ph.D.

Oak Ridge National Laboratory, Oak Ridge, TN, USA

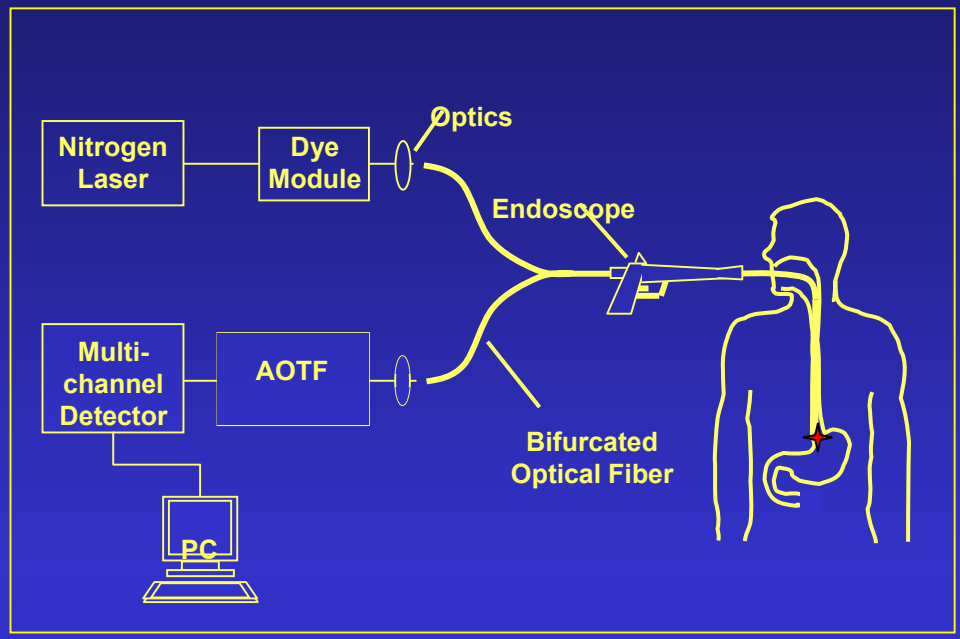
Partnerships:

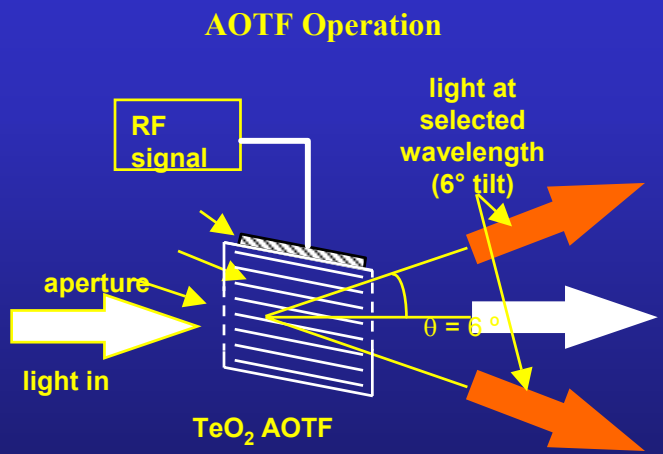
Masoud Panhejpour, Ph.D., Bergein. F. Overholt, M.D.,
Thompson Cancer Center, Knoxville, TN, USA

Robert DeNovo, D.M.V.

University of Tennessee, Knoxville, TN, USA

- This project will develop a novel multi-spectral imaging (MSI) system to detect cancer *in vivo*
- Use of the unique synchronous luminescence (SL) concept for improved spectral resolution
- State-of- the-art acousto-optic tunable filter (AOTF) technology





- Novel MSI imaging technology will be developed to obtain spatially resolved images
- Following technology development at ORNL, animal studies will be performed at the University of Tennessee School of Veterinary Medicine
- Once the MSI system has been optimized, clinical studies will be performed at the Thompson Cancer Survival Center for GI cancer diagnosis